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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,565	02/11/2004	Raymond W. Hawes	RAPDEP P01AUS	2784
20210 7590 10/11/2007 DAVIS & BUJOLD, P.L.L.C. 112 PLEASANT STREET CONCORD, NH 03301			EXAMINER PAINTER, BRANON C	
			ART UNIT 3633	PAPER NUMBER
			MAIL DATE 10/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/776,565	HAWES, RAYMOND W.	
	Examiner	Art Unit	
	Branon C. Painter	3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 15,16 and 19-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 6-10 is/are rejected.
- 7) ☒ Claim(s) 3,5,11-14,17 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-14 and 17-18 in the reply filed on 09/10/07 is acknowledged. The traversal is on the ground(s) that Groups I and III cover essentially the same components. This is not found persuasive because the test for restrictability between a product and process of use requires either the process to be practicable with a materially different product, or the product to be capable of use in a materially different process. The use of these products in applicant's process does not prevent those products from being capable of use in another, materially different process.
2. Applicant further traverses on the ground(s) that "the product (system), as presently claimed, cannot be made by a materially different method and the method, as presently claimed, cannot be used in a materially different process. This is not found persuasive because the test for restrictability, as described above, allows restriction when a product can be made by a materially different process. In this case, the product can be used in a process that employs nails, glue, or other fastening means rather than a bolt to connect the structural elements.
3. Lastly, applicant traverses on the ground(s) that different fields of search does not necessarily mean that the inventions themselves are divergent. This is not found persuasive because the product requires the structure of the elements, but does not require the elements be connected, as required by the method. As such, the

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searches for each element, and for the connection of these elements, are different and divergent and would result in undue burden on the examiner.

4. The requirement is still deemed proper and is therefore made FINAL.

Drawings

5. The drawings were received on 05/21/04. These drawings are accepted.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 9 recites the limitation "the bolt-type connectors" in line 3. There is insufficient antecedent basis for this limitation in the claim. For the purpose of this examination, the examiner presumes that applicant refers to the "bolt-type fastener" of claim 1.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

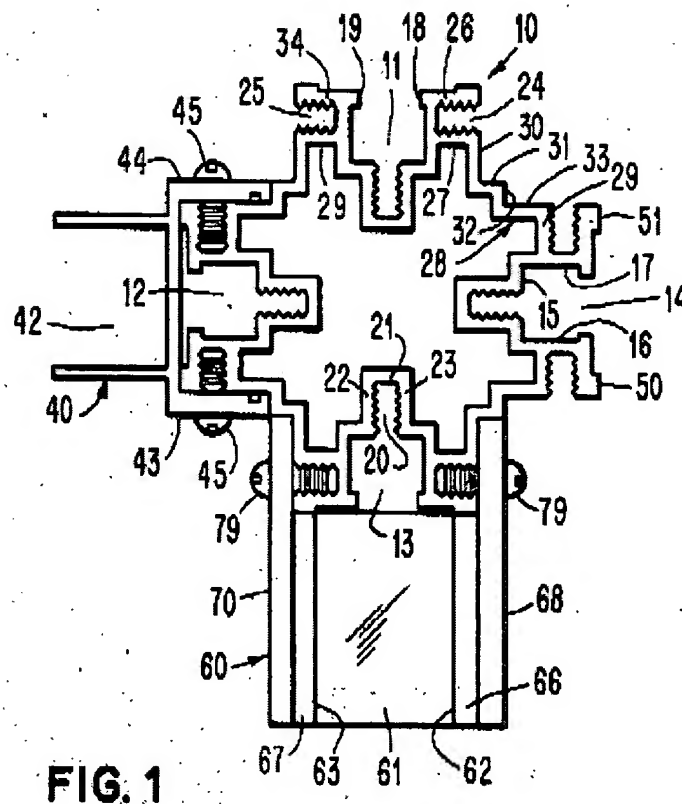
7. Claims 1-2 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Corman (U.S. Patent No. 3,782,048).

8. Regarding claim 1, Corman discloses a structural element having all of the applicant's claimed structure, including:

A system including a plurality of types of modular structural components ("longitudinal elements" 40 and 60, Fig. 1) for construction of structures, each structural component including at least one of a plurality of structural elements, the structural elements comprising: chords, each chord including a generally elongated main body having generally square cross section ("support post" 10, Fig. 1) defined by four main walls surrounding a central bore and having four interior main surfaces (inner facing "bottom wall" 21, Fig. 1) and four exterior main surfaces ("side walls" 27 and 29, Fig. 1), and a T-slot structure extending along and centered on each exterior main surface, each T-slot structure having an interior T-slot adapted to accept a bolt type fastener, each T-slot including a shaft slot extending inwards from an outer surface of the T-slot structure and connecting with a cross slot extending at a right angle to the shaft slot at an inner end of shaft slot ("recesses" 11-14, Fig. 1).

9. The examiner notes that claim scope is not limited by claim language such as "adapted to," which suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure.

See MPEP 2111.04.

**FIG. 1**

Reproduced from U.S. Patent No. 3,782,048

10. Regarding claim 2, Corman discloses a straight chord that is generally vertically oriented and has a plurality of bolt holes for attachment ("longitudinal elements" 40 and 60, Fig. 1; "The element 40 is secured to the support post 10 by screws 45 extending through longitudinally spaced holes in the walls 43 and 44 of the larger U-shaped channel 41 of the element 40 and into the threaded grooves 24 and 25," column 4, lines 59-63).
11. Regarding claim 6, Corman discloses bolt holes near the ends of the structural element and spaced along the structural component ("The element 40 is secured to the support post 10 by screws 45 extending through longitudinally spaced holes in

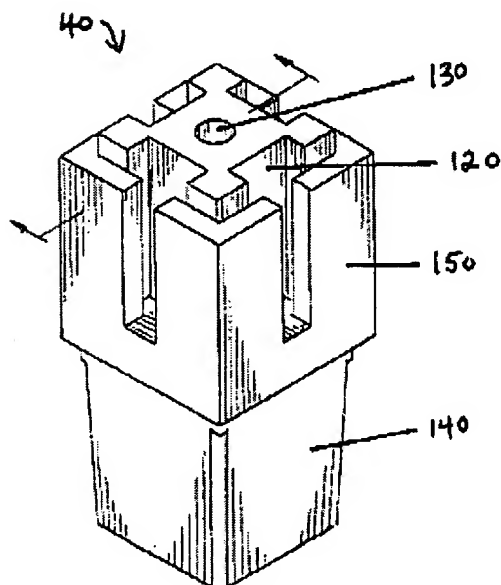
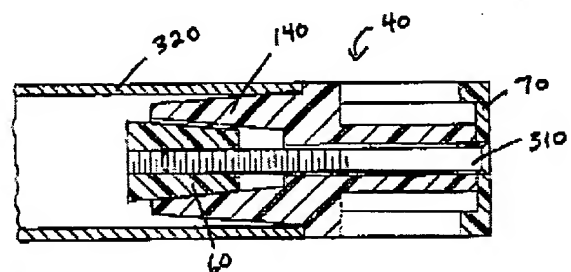
the walls 43 and 44 of the larger U-shaped channel 41 of the element 40 and into the threaded grooves 24 and 25," column 4, lines 59-63).

12. Regarding claim 7, Corman discloses T-slot structures defined by two parallel slot side walls ("side walls" 16 and 17, Fig. 1) extending out in parallel from an exterior main surface ("side walls" 27 and 29, Fig. 1) and by two slot face walls extending inwardly from the slot side walls ("flanges" 18 and 19, Fig. 1).
13. Regarding claim 8, Corman discloses at least one bolt hole in a structural component ("The element 40 is secured to the support post 10 by screws 45 extending through longitudinally spaced holes in the walls 43 and 44 of the larger U-shaped channel 41 of the element 40 and into the threaded grooves 24 and 25," column 4, lines 59-63).
14. Claim 4 is rejected under 35 U.S.C. 102(e) as being anticipated by Altman (U.S. Patent No. 6,969,211).
15. Regarding claim 1, Altman discloses a frame structure connector system having all of the applicant's claimed structure, including:

A system including a plurality of types of modular structural components ("connector cap" 70, Fig. 17) for construction of structures, each structural component including at least one of a plurality of structural elements, the structural elements comprising: chords, each chord including a generally elongated main body having generally square cross section ("connector body" 40, Fig. 4) defined by four main walls surrounding a central bore and having four interior main surfaces (back walls of

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"connector slots" 120, Fig. 4) and four exterior main surfaces ("side surfaces" 150, Fig. 4), and a T-slot structure extending along and centered on each exterior main surface, each T-slot structure having an interior T-slot adapted to accept a bolt type fastener, each T-slot including a shaft slot extending inwards from an outer surface of the T-slot structure and connecting with a cross slot extending at a right angle to the shaft slot at an inner end of shaft slot ("connector slots" 120, Fig. 4).

*Fig. 4**Fig. 17*

Reproduced from U.S. Patent No. 6,969,211

16. Regarding claim 4, Altman discloses a stub of square cross-section that slides into the chord and having at least one bolt hole ("wedge member" 60 with hole for "fastener" 310, Fig. 17).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

19. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corman (U.S. Patent No. 3,782,048) in view of Heard et al. (U.S. Patent No. 5,590,504).

20. Regarding claim 9:

- a. Corman discloses a structural element as set forth above.
- b. Corman does not expressly disclose a T-bolt that engages with the shaft slot.
- c. Heard et al. discloses a T-slot with accompanying T-bolt engaged therein ("bolt shank" 158 with "head" 160, Fig. 20). Utilizing a T-bolt as taught by Heard et al. allows a threaded member not otherwise engagable with a T-slot to be attached to the structural element of Corman via its T-slot.

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- d. Corman and Heard et al. are analogous art because both are from the field of endeavor of T-slotted members.
 - e. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the structural element of Corman by inserting a T-bolt into the T-slot as taught by Heard et al., in order to allow a threaded member not otherwise engagable with a T-slot to be attached to the structural element.
21. Regarding claim 10, Corman further discloses a T-slot with a bearing inner surface and an inner face of each T-slot ("bottom wall" 21, Fig. 1) whose plane is offset inwardly from that of the corresponding exterior main wall ("side walls" 27 and 29, Fig. 1).

Allowable Subject Matter

22. Claims 3, 5, 11-14, and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Branon C. Painter whose telephone number is (571) 270-3110. The examiner can normally be reached on Mon-Fri 7:30AM-5:00PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Richard Chilcot
Supervisory Patent Examiner
Art Unit 3635

Branon Painter
10/01/2007